ANSWERS to **Vivid Volume**

Practice Exercises – Perimeter & Surface Area

(From Bassarear, T. (2008). *Mathematics for Elementary School Teachers*. Houghton Mifflin: Boston. Chapter 10.)

BASIC – Finding **surface area** and **volume**

(Exercises 1-7 only)

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| Exercise | Surface Area | Volume | |
| 1.a. | 1474.34 in2 | 2160 in3 | |
| 1.b. | 35,630 ft2 | 312,000 ft3 | |
| 1.c. | ≈ 242 ft2 | ≈ 267 ft3 | |
| 2.a. | Height=18m; S.A.=640 m2 | | |
| 2.b. | Length=6m; Volume=210m3 | | |
| 2.c. | Width=3m *or* 4m; Height=4m *or* 3m | | |
| 2.d. | Length=15m; S.A.=236m2 | | |
| 3.a. | n/a | n/a | |
| 3.b. | 56π or 176 ft2 | 48π or 150.72 ft3 | |
| 3.c. | Height = 5.1 m | | |
| 4.a. | 1 x (*or* 1 x 2.24) | | |
| 4.b. | 6 x 2π | | |
| 5.a | 47 ft2 | 16 ft3 | |
| 5.b. | 695.2 ft2 | 101.8 ft3 | |
| 5.c. | 1980 ft2 | 2985 ft3 | |
| 6.a. | 1085 ft2 | 3300 ft3 | |
| 6.b. | n/a | | |
| 7.a. | 216 in2 | | 144 in3 |
| 7.b. | n/a | | |
| 7.c. | n/a | | |